

Art Unit 2651
Serial No.10/816,683

Reply to Office Action of: 05/27/2005
Attorney Docket No.: K35A1407

REMARKS

Claims 1-10 are pending in the present Applications. Applicant kindly thanks the Examiner for the indication that Claim 7 is objectionable as being dependent on a rejected claim but that it would be allowable if rewritten in independent form including all of the limitations of the base claim. Claim 1 is rejected under 35 U.S.C. §112, first paragraph, for failing to enable a person skilled in the art to make or use the invention. Claims 1-6 and 8-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,034,835 issued to Serrano ("*Serrano*") in view of U.S. Pat. No. 6,366,423 issued to Ahn ("*Ahn*"). Applicants respectfully traverse these rejections and request reconsideration and allowance of the pending claims.

NEW CLAIMS:

Applicant adds independent Claim 11 and dependent Claims 12-19. All new claims are fully supported by the specification as originally filed. Independent Claim 11 includes all of the limitations of now-cancelled Claim 7 and should therefore be allowable based on the Examiner's indication of allowable subject matter. Claims 12-19 depend on Claim 11 and are allowable for at least that reason. Accordingly, Applicant respectfully requests consideration and allowance of new Claims 11-19.

AMENDMENTS TO THE CLAIMS:

Applicant amend Claim 1 to correct a typographical error in the preamble and to clarify that "the second normal burst field and the second quadrature burst field have a same second phase." The Examiner correctly discerned that the claimed limitations did not match the description in the specification. The error was due to an inadvertent typographical error, and based on the description provided in the specification, it should be clear that the amendment to Claim 1 is simply intended to correct an apparent error rather than to change the scope of the claim. As the amended claim language now conforms to the specification, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. §112 that Claim 1 is not enabled.

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REJECTION UNDER 35 USC 103(a):

The Examiner rejects independent Claim 1 as being obvious over *Serrano* in view of *Ahn*. Claim 1 recites "wherein the first normal burst field and the first quadrature burst field have a same first phase, the second normal burst field and the second quadrature burst field have a same second phase, a difference between the first phase and the second phase is less than 180 degrees." Specifically, the Examiner asserts that the quoted limitations are shown in *Serrano* by the use of servo bursts A, B, C, and D to form quadrature signals $P = A-C$, $-P = C-A$, $Q = B-D$, and $-Q = D-B$, with servo bursts A and B having the same phase and servo bursts C and D having the same phase (*Serrano*, col. 6, ll. 25-55, and Fig. 3). But contrary to the Examiner's assertion, the servo bursts A, B, C, and D of *Serrano* do not show the recited burst fields of Claim 1. In *Serrano*, quadrature signals are generated by bursts of different frequencies, which are related to one another so as to produce signal P, Q, -P, and -Q that are 90 degrees out of phase with one another (col. 6, ll. 42-44). *Serrano* teaches nothing about the phase relationship between burst pair A/B and burst pair C/D, and moreover, because the respective burst pairs have differing frequencies, there would be no common frequency between the pairs to even speak of a phase difference between them. Even more pointedly, *Serrano* would teach away from introducing any phase shift into either burst pair that would disturb the frequency relationship between the bursts that is used to generate quadrature signals from the bursts. Thus, *Serrano* not only fails to teach each and every limitation recited in Claim 1 but also teaches away from modifying the servo bursts A, B, C, and D to produce the recited phase relationship. Nor does *Ahn* provide any additional teaching, hint, or suggestion of the recited limitations that are missing from *Serrano*, much less any motivation to modify the teaching of *Serrano* to produce the recited combination of limitations.

For at least the foregoing reasons, *Serrano* and *Ahn*, whether taken separately or in combination with one another, fail to render Claim 1 obvious. Claims 2-6 and 8-10 depend directly or indirectly on Claim 1 and are allowable for at least that reason. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 1-6 and 8-10.

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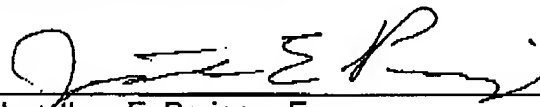
CONCLUSION

In view of the foregoing amendments and/or remarks, Applicant respectfully submits that the pending claims are now in condition for allowance and requests reconsideration of the rejections. If it is believed that a telephone conversation would expedite the prosecution of the present application, or clarify matters with regard to its allowance, the Examiner is invited to contact the undersigned attorney at the number listed below.

The Commissioner is hereby authorized to charge payment of any required fees associated with this Communication or credit any overpayment to Deposit Account No. 23-1209.

Respectfully submitted,

Date October 27, 05

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